UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,420	03/29/2001	Herbert B. Slade	55507USA002	5602

32692 7590 04/27/2004

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER	
HUI, SAN MING R	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/820,420	SLADE, HERBERT B.	
	Examiner	Art Unit	
	San-ming Hui	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-9 and 15-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-8 and 15-21* is/are rejected.

7)☒ Claim(s) *9 and 22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

The amendments filed April 1, 2004 have been entered. The cancellation of claims 1 and 14 is acknowledged.

Upon reconsideration, the broadest claims herein still read on dermal lesion caused by bee sting and jellyfish contact. Therefore, a new ground of rejection is set forth herein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-8 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomai et al. (WO 98/17279) and Gerster et al. (US Patent 6,110,929) in view of

Leynadier et al. (Journal of Allergy and Clinical Immunology, 1997; 99(6 pt 1): 851-853), Mosbech et al. (Ugeskrift for Laeger, 1991;153(44):3067-3071) and Auerbach et al. (Journal of Emergency Medicine, 1987;5(6):487-491). Tomai, Gerster, Mosbech, and Auerbach are references of record in the previous office action.

Tomai et al. teaches imidazoquinoline amine compounds including 4-amino-2-ethoxymethyl-α,α -dimethyl-1H-imidazo[4,5-c]quinoline-1-ethanol and 1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-4-amine, preferred compounds herein, can inhibit T-cell Type-2 activities (See particularly the abstract,page 2, line 5-20, page 12, line 13-20, clam 17). By inhibiting the activities of T-cell Type 2, it can also reduce the production of cytokines such as interleukin-3, interleukin-4, and interleukin-5, and the production of IgE and esinophils activities thereby (See particularly the abstract, page 2, line 5-20, page 12, line 13-20, clam 17). Tomai et al. also teaches that IgE is the important component of allergic reaction (See particularly page 12, line 13-20). Tomai et al. also teaches that the imidazoquinoline amine compounds including 4-amino-2-ethoxymethyl- α,α-dimethyl-1H-imidazo[4,5-c]quinoline-1-ethanol may be administered via topical route as topical cream or gel (See particularly page 3, line 14-15).

Gerster et al. teaches thiazoquinoline compounds including 2-methylthiazolo[4,5-c]quinolin-4-amine, 2-ethylthiazolo[4,5-c]quinolin-4-amine, 2-propylthiazolo[4,5-c]quinolin-4-amine, and 2-butylthiazolo[4,5-c]quinolin-4-amine, preferred compounds herein, can inhibit T-cell Type-2 activities and be useful in wound treatment (See particularly the abstract; col.6, line 41-46; also also col. 14, ine 63-64). Gerster et al.

also teaches that the thiazoquinoline compounds may be formulated into topical creams and ointments (See col. 13, line 49).

The references do not expressly teach the imidazoquinoline and thiazoquinoline compounds are useful in treating and/or preventing dermal lesions by venom induced immune dysregulation caused by jellyfish, scorpion, and insect of the order Hymenoptera.

Leynadier et al. teaches patietns developed IgE mediated hypersensitive reaction (e.g., allergic reaction) after scorpion bite (See the abstract, and the Result and Discussion Section).

Mosbech et al. teaches that bee or wasp sting could result in allergic reactions (See the abstract).

Auerbach et al. teaches that jellyfish envenomation could cause intense dermatitis that is responsive to local and systemic mild immunosuppressive agent corticosteroid (See the abstract).

It would have been obvious to one skill in the art when the invention was made to employ the imidazoquinoline and thiazoquinoline compounds herein in a method of treating and preventing dermal lesions by venom induced immune dysregulation, in particular caused by jellyfish, scorpion, and insect of the order Hymenoptera.

One of ordinary skill in the art would have motivated to employ the imidazoquinoline and thiazoquinoline compounds herein in a method of treating and preventing dermal lesions by venom induced immune dysregulation, in particular caused by jellyfish, scorpion, and insect of the order Hymenoptera because the

imidazoquinoline and thiazoquinoline compounds herein are known to be useful in treating diseases by T-cell type 2 inhibition, esinophils (polymorphhnuclear leukocyte) inhibition, and IgE inhibition. Therefore, employing the imidazoquinoline and thiazoquinoline compounds herein to treat or prevent dermal lesions caused by jellyfish, scorpion, and bee envenomation would be reasonably expected to be effective regardless of the underlying mechanism of action of how the dermal lesions developed since the imidazoquinoline and thiazoquinoline compounds herein are known to be useful in blocking IgE and esinophil activities, which is an important component for allergic dermatitis.

Allowable Subject Matter

Claims 9 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to San-ming Hui whose telephone number is (703) 305-1002. The examiner can normally be reached on Mon 9:00 to 1:00, Tu - Fri from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, PhD., can be reached on (571) 272-0629. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

San-ming Hui
Patent examiner
Art Unit 1617